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# APPRENTICESHIP AND TRAINING PROGRAM

BIENNIAL REPORT FOR  
2005 & 2006



SUBMITTED TO: GOVERNOR BRIAN SCHWEITZER

PREPARED BY :  
THE APPRENTICESHIP TRAINING PROGRAM  
WORKFORCE SERVICES DIVISION  
MONTANA DEPARTMENT OF LABOR & INDUSTRY

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DEPARTMENT OF LABOR AND INDUSTRY  
WORKFORCE SERVICES DIVISION  
APPRENTICESHIP & TRAINING PROGRAM



GOVERNOR BRIAN SCHWEITZER

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The Honorable Brian Schweitzer  
Governor  
State of Montana  
Helena, MT 59620

Dear Governor Schweitzer:

In accordance with Section 39-6-101, MCA, Duties of Department, we have the honor of submitting to you the Biennial Report of the Montana State Apprenticeship Training Program. This report covers Apprenticeship and Training Program activities from July 1, 2004 through June 30, 2006.

Respectfully submitted by  
The Montana State Apprenticeship Training Program

Mark S. Maki, Supervisor



# Introduction

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Registered apprenticeship is an important resource for employers and an opportunity for workers in these demanding times. In the environment of "down sizing" and "right sizing" the workforce must be more efficient and productive. The better we train Montana's workforce today, the more likely they will be up to the challenges in tomorrow's work place.

As unemployment figures get lower, the availability of skilled workers declines. The remaining people are likely to be those with skills that don't match those of current openings in the job market. The Apprenticeship Training Program, Department of Labor and Industry, helps fill this void through services provided to Montana employers.

Through a registered apprenticeship program, employers can get professional assistance to train Montana workers to become highly skilled in their occupational trade, or craft. As our state economy becomes more service based, the demand for a technically trained, skilled work force will increase.

Apprenticeship is the oldest known form of skills training. It's a skilled worker teaching the skills of their craft to other workers. Registered apprenticeship training includes both supervised on-the-job training through actual work and related technical instruction in the classroom. Business, Labor and Government work in cooperation to provide structured progressive instruction programs designed to develop high quality, skilled, employable workers.

*"The Montana State Apprenticeship Program is a valued program. The program is responsible for many skilled employees that add positive strengths to our state. The apprenticeship program keeps on the job training and class room training in check and holds apprentices and employers accountable for turning out skilled and qualified Plumbers, Electricians and Timmers."*

Mr. Tom O'Connell,  
Quality Plumbing & Heating Inc, Great Falls, MT



An employer that sponsors a registered apprenticeship training program in their company experiences many benefits:

**1- A Source of Trained Workers**

Employers can guarantee their companies a steady supply of competent, well-trained workers. These workers will have the added benefit of being trained in the sponsoring company's quality standards and work practices. Skilled workers do the job faster and with fewer callbacks.

**2- Economy**

Apprentice training costs are minimal because apprentices produce while they learn and earn on a progressive wage schedule.

**3- Less Turnover**

Apprentices in a certified training program know they have jobs with futures. Satisfied employees mean less potential turnover.

**4- Improved Labor Relations**

Employers establish a mutually beneficial association with the apprentices in their employ.

**5- Demonstrates Community Commitment**

Employers that sponsor a registered apprenticeship program have taken it upon themselves to provide more career opportunities and training for people in their communities.

**6- Recognition**

Apprenticeship training programs registered by the Montana Department of Labor and Industry have the respect of industry, labor and communities.



Why learn a trade through an apprenticeship instead of through some other method? Some of the advantages of completing a registered apprenticeship program include:

### 1- Exposure

Apprenticeship gives workers versatility by teaching them all aspects of a trade. Apprenticeship facilitates the acquisition of skills not just for a single job, but also for a career. It helps them learn to work with different kinds of people in a working situation. It familiarizes them with the overall picture of a company's operation and organization.

### 2- Competition

Apprentice graduates are more educated, work more steadily, learn their trades faster and are more likely to become supervisors than non-apprentice craft workers.

### 3- Job Security

Apprenticeship produces better skilled, more productive and safer craft workers. Apprenticeship graduates experience less unemployment than craft workers trained in informal ways, since employers retain better skilled workers and often specifically request them for a job.

*"The A.W.A.R.E. Inc. Early Head Start Program in Butte and Dillon has the privilege to work with the State of Montana's Apprenticeship program for many years. This program has contributed greatly to the professional development of our educational staff. Within our program it is voluntary, on the part of our staff, to participate in the apprenticeship program. Currently one hundred percent choose to participate in this program."*



*We feel that through the apprenticeship process our staff gains the professional attributes that are often over looked in the early childhood field. These elements are then put into practice in our center, classrooms and the community. We value the apprenticeship program, which is demonstrated by the percentage of employees that have been and are currently involved with this program. We also appreciate and value the support from the Apprenticeship Staff."*

Tom Richards, Early Head Start Director, Butte, MT





# Registered Apprenticeship System and Administration

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# Registered Apprenticeship

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**R**egistered apprenticeship is a voluntary training program. Employers that choose to sponsor a program are expected to meet established program standards. Apprenticeship standards are established by each respective industry. They are intended to train skilled workers to know all aspects of their particular industry, rather than limit worker's experience and knowledge. Not all employers engage in a broad enough scope of their particular trade to adequately train an apprentice.

Registered apprenticeship is on-the-job training supplemented with related technical instruction. Apprentices work under the supervision of qualified journey workers to develop the skill and learn the techniques, materials and equipment of the trade.

Classroom or approved home study courses that provide training in the theoretical and technical aspects of the trade are required. Minimum class time is 144 hours for each year of the apprenticeship, but may be higher for some trades.

Apprentices are generally evaluated every six months and receive pay raises upon verification of satisfactory progress in skill development and course work. An apprentice's starting wage is usually 50% of the applicable journey worker rate. There are wage increases from five to ten percent for each increment period of satisfactory progress.

When a registered apprenticeship program sponsor verifies that the apprentice has fulfilled all requirements of the training program, the Montana Apprenticeship and Training Program will issue a certificate of completion. This validated national credential is proof that the completing apprentice is a fully qualified skilled worker in their trade.



# Administration of the State of Montana Apprenticeship and Training Programs

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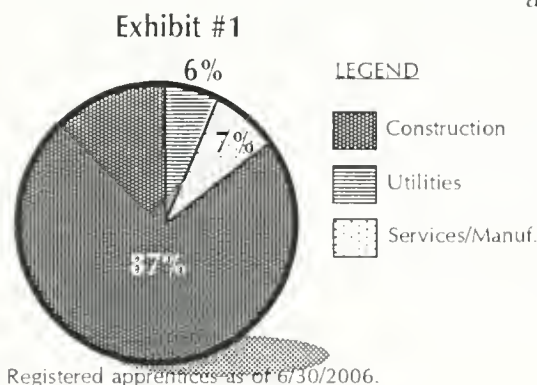
In 1941, the Montana 27th Legislative Assembly enacted Chapter 149 to create an apprenticeship system. The program operated with informal federal recognition from 1941 until 1977. In 1977 federal regulations were finalized (Title 29, CFR 29.12). The United States Secretary of Labor officially recognized the authority of the Montana Department of Labor and Industry to determine individual apprenticeship program compliance for federal purposes.

Over the years, apprenticeship has been administered from several divisions within the department. The Montana Department of Labor and Industry was re-organized in 1993 and on July 1, 1993, the Apprenticeship and Training Program was relocated in the Workforce Services Division. This placement of the program provides a more direct administrative link with other employment and training services provided by the Department.

There is a stereotypical image of apprenticeship within the general public as only applying to union construction jobs. Registered apprenticeship also includes numerous occupations in the medical and food service fields as well as many mechanical and artisan trades and is expanding into the fields of information technology.

There are over 180 occupations registered as apprentice-able in Montana. The Apprenticeship and Training Program currently has apprentices being trained in

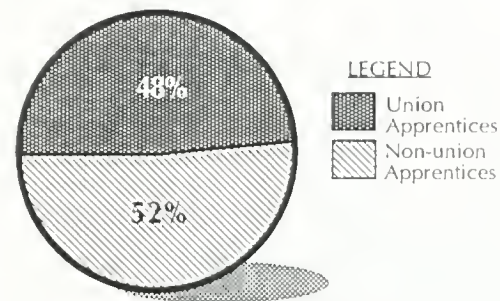
50 of those trades. As of June 30, 2006, 1308 registered Montana apprentices were being trained in three major labor categories: construction, utilities, and service/manufacturing.





The Montana Apprenticeship and Training Program provides technical assistance and oversight for all registered programs. In Montana as of June 30, 2006, 48% of the registered apprentices are union affiliated and 52% of all registered apprentices are independently sponsored. Additionally, there are 36 Joint Apprenticeship and Training Committees (JATC) sponsored programs, which represents approximately 320 union employers. The JATC's are structured with equal numbers of management and labor members. The JATC's are generally the larger apprenticeship sponsors and historically the administrative models for their trades.

**Exhibit #2**



Registered apprentices as of 6/30/2006.

The Apprenticeship and Training Program, Department of Labor and Industry provides the following services to employers, workers, the public and the educational community:

- Free consulting and technical assistance to employers in establishing and registering apprentice training programs.
- Oversight service and monitoring of existing apprenticeship programs to ensure compliance with state, federal and industry training standards and successful completion of apprentices.
- Maintain and revise apprentice-training standards, to safeguard the welfare of apprentices and to ensure the quality of the training.
- Provide information to the public about apprenticeship opportunities.





- Certify apprentices on public works projects.
- Functions as Montana's authorized approval agency for V.A. benefit purposes.
- Record and issue certificates to individuals who successfully complete their apprenticeship training program.

Apprentice sponsorship is a significant commitment between an employer and the apprentice. The sponsors train skilled workers that support Montana's economic vitality. Prior to the certification of a new sponsor and apprentice, there has been thorough information and consultative services provided. The better the understanding of program requirements for those involved the fewer problems there are to correct throughout the term of the apprenticeship. Apprenticeship Training Program staff work with sponsors on a continuing basis to ensure the best prospects of successful completion for as many apprentices as possible.

Successful apprenticeships require various types and degrees of involvement from all parties through the term of each apprentice. The programs' staff invests time, resources and energy in the success of each registered apprentice. New apprentices are not counted as a positive achievement until the completion of their training. The staff strives to remain involved with each program and apprentice throughout their training period.

*"Abacus Electric, and their apprentice Dani, have been working on our home in Twin Bridges during the month of January, 2006. During the course of the "rough in" we have been very impressed with the professionalism of the apprentice. Richard is an amazing electrician and is passing along his expertise to a very smart and accomplished person. On*

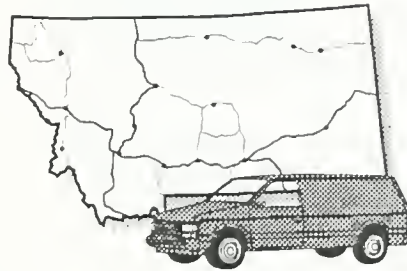


*the last day of their work we commented on the incredible mileage of wire in the house and how beautifully all the wire was pulled together and marked and assembled in the electrical box in the garage. Richard told us that Dani did that work. This certainly showed how much she is learning and doing."*

Greg and Janet,  
Twin Bridges, MT

From July 1, 2004 to June 30, 2006, program staff conducted 1,298 quality and compliance inspection visits to sponsors of registered apprenticeship programs. During these informal visits, program compliance is reviewed, technical assistance is provided and information on new laws or regulations affecting the sponsor is provided. Other issues

Exhibit #3



In 2004-2006, the program's field staff drove 113,248 miles, conducting on-site business.

Exhibit #4



In 2005 and 2006, program field representatives spent 32 percent of their working hours on site.

that could impact the over-all success of sponsor's program are dealt with on a personal basis.

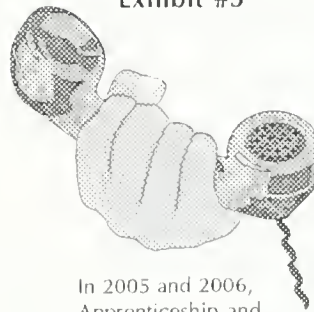
Apprenticeship Training Program staff provide active program management assistance to sponsors and apprentices. The staff also provides the in-person service that many Montana employers expect. This service is provided to employers without fees or direct cost. For the July 1, 2004 to June 30, 2006 time frame, the Apprenticeship and Training Program staff traveled 113,248 miles and



spent approximately 5,256 hours, 32% of their working time, in the field servicing the apprenticeship community in Montana. Effectively there was one program staff member in the field at any given time through out the year.

During the period in review, the staff registered 1127 new apprentices and certified 131 new program sponsors. Additionally, the six person staff handled over 14,350 incoming telephone calls requiring various degrees and levels of response. Furthermore, the combined program staff sent over 22,792 survey inquiries, sponsor and apprentice letters, administrative rule notices and program information packages concerning the program during the time frame in review.

#### Exhibit #5



In 2005 and 2006,  
Apprenticeship and  
Training staff handled  
14,350 incoming  
telephone calls.



# The Economic Impact of Apprenticeship

Apprentices, unlike many people in learning situations, earn wages that contribute to the support of all levels of government and purchase goods and services in their communities. The apprentices' progressively increasing wages lead to good stable wages in skilled occupations. A well paid, trained and skilled labor force is the backbone of Montana's economy.

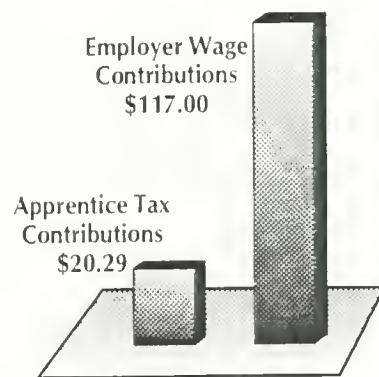
The State of Montana expended \$362,000.00 to support apprenticeship training during fiscal year 2005/2006. The program had 1308 apprentices registered as of June 30, 2006. In 2005-06 these apprentices earned an average hourly wage of \$15.57 per hour and an average gross annual wage of \$32,385.60.

Montana employers contributed approximately \$42,360,364.00 in gross wages to apprentices while the average apprentice contributed \$5,616.00 in income taxes to the state and federal economies.

Therefore, for every one (1) dollar the state invested in 2005/2006, in registered apprenticeship, employers paid \$117.00 in wages and the apprentice contributed \$20.29 in taxes. The estimated amount of taxes paid by Montana apprentices in 2005/2006 amounted to \$7,345,728.00.

**\* The survey did not include registered child care specialist apprentices due to the difference in the over all wage structure.**

Exhibit #6



Every one state dollar invested returns \$20.29 in apprentice taxes and \$117.00 in employer contributed wages.





# 2006 Apprentice Retention Rate

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The Montana Apprenticeship and Training Program in collaboration with the Research and Analysis Bureau, Department of Labor and Industry interfaced social security numbers of all Montana registered apprentices successfully completing apprenticeship programs, with Montana UI wage earning data and the results are as follows:

1. All apprentices successfully completing the program from January 1997 to July of 2006 were used for the report. The report revealed that 1587 apprentices had graduated / completed Montana apprenticeship programs since 1997.
2. Historical data indicates that the completing apprentices worked in 48 to 55 different apprentice-able occupations, with an estimated 87% of all completing apprentices working in construction related occupations.
3. Historical data also indicates that out of all of the completing apprentices, an estimated average of 52% work as registered apprentices in independent employment, with 48% completing apprentices registered with union affiliation.
4. The report revealed that out of the 1,587 apprentices completing the program since 1997, 1,331 (84%) were identified through UI (unemployment insurance) data collection as wage earners in Montana through the end of the first reporting quarter of 2006. The remaining 16% of completing apprentices are either not living in the state or are operating their own business or are not working (laid-off).
5. The R&A report also included wage earning information for the identified completing apprentices. The report stated over \$63 million dollars earned by the completing apprentices in four business quarters between 2nd quarter 2005 and 1st quarter 2006.



# Related Instruction

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All apprenticeship programs require no less than 144 clock hours of education directly related to the occupation for each year of apprenticeship. Some occupations, such as the electrical and plumbing apprenticeships, require over 200 hours of education per year due to the rapid change in technology in those trades.

The educational requirements referred to as related instruction are delivered to Montana apprentices in several formats. Most union sponsored program, also known as "JATC's" will provide a classroom instructor environment which is often paid for by joint contributions between labor and management. The Independent Electrical Contractor's Association which has four chapters in Montana also provides a classroom instructor environment and utilizes association provided educational material. The IEC program provides education for an estimated 125 independent electrical apprentices in Montana, which is funded by contributions from both the employer and the apprentice. During the period in review, MSU-Northern in Havre developed and now offers a correspondence package for the plumbing apprenticeship and has industry concurrence to develop a similar correspondence package for the electrical apprenticeship. North Dakota State College of Science is still the primary provider for correspondence course work that is sold to Montana apprentices. NDSCS provides the correspondence with internet support to an estimated 600 Montana apprentices working in numerous apprenticeshipable occupations.

State funding for apprenticeship related instruction expired in April 2003. Since then, the Apprenticeship & Training Program has developed a payment option package between the employer and apprentice to determine who will pay for the related instruction. The package offers six options for course work payment with the majority of the employers and the apprentices electing to split the cost of the course work.



During fiscal years 2004-2006, North Dakota State College of Science (NDSCS) sold 1,420 courses and Montana State University-Northern (MSU-N) sold 859 courses to Montana apprentices with Montana sponsors and apprentices contributing \$392,676.00 towards the related instruction cost. The program has experienced a steady growth rate in correspondence course usage from 1991 to 2006 with over a 1,600% increase in courses sold since 1991.

*"The purpose of this letter is to relay our satisfaction with the MT Apprenticeship Program. Since May 9, 1985 Williams Plumbing & Heating (WPH) has participated in the training of many people in the plumbing industry. The current curriculum of coursework, 8,500 hours of on-the-job training, and the State exam assures that knowledgeable, professional stewards enter the industry. Currently WPH has 18 plumbing apprentices at different levels of training. Through the course of their training, we strive to expose each of them to all phases of the plumbing industry while providing them with a decent graduated wage as outlined in the Apprenticeship Standards. When our apprentices finish with their hours and coursework, they are ready for the State exam."*

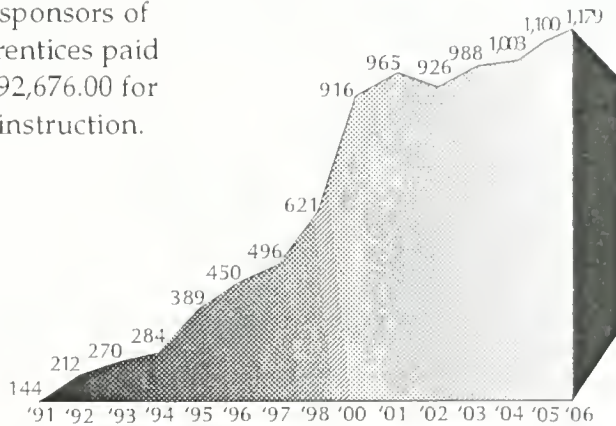
**Rick Hueser, General Manager,  
Williams Plumbing & Heating**

The Apprenticeship and Training Program staff maintains a strong stance to ensure that there is steady progress by apprentices enrolled in correspondence course related instruction. Apprentices working on courses alone without the benefit of a classroom environment and on their own time need a strong support system. Several program measures to provide this support have shown marked improvements in



the last few years. In 1991, a total of 144 courses were sold that year primarily to independent registered apprentices. With an increased number of registered apprentices and an emphasis on timely completion of course work, the utilization of correspondence courses has significantly grown. In fiscal years 2004-2006, 2,279 courses were sold to Montana apprentices. Furthermore, during that fiscal period, Montana independent employer/sponsors of apprenticeship and apprentices paid out of pocket costs of \$392,676.00 for correspondence related instruction.

Exhibit #7



Number of courses ordered by Montana employer-sponsored programs by NDSCS & MSU-N as of 6/30/06.

During the period in review, Montana employers and apprentices expended an estimated \$248,000 for registered apprenticeship education from the North Dakota State College

of Science. Recent linkages that have developed with labor, business and education in Montana and the advent of trades training programs being developed by the Montana higher education community will have a direct impact on keeping money spent for apprenticeship training in Montana.





# 2004-2006 Apprenticeship Training Program Activities

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# Apprenticeship Statistics

The number of registered apprentices in Montana as of June 30, 2006 was 1,308 with 6% female and 6% minority participation. During the biennium, the number of registered apprentices fluctuated from 1,101 to 1,308, with the program experiencing 16% overall growth, which is greater than the average annual growth rate ranging from 8 to 16% since 1991.

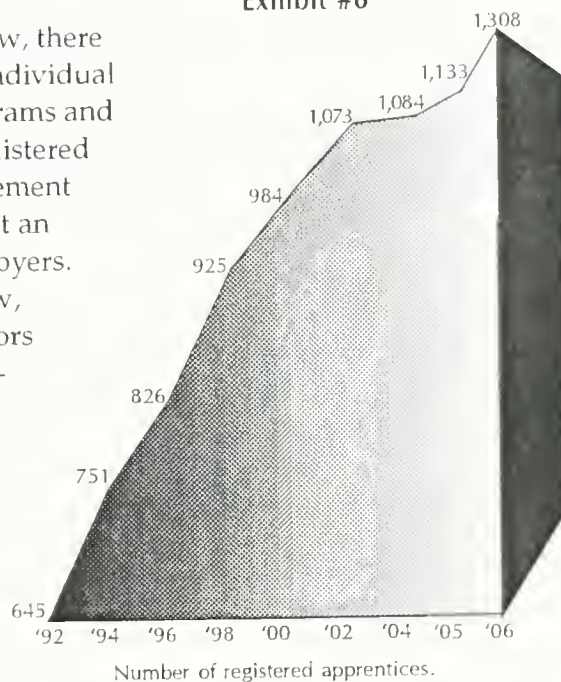
During the period in review, there were 574 active certified individual employer sponsored programs and 36 programs jointly administered through labor and management partnerships that represent an estimated 320 union employers. In the time frame in review, 131 new programs/sponsors were developed and registered, with 1,127 new apprentices registered.

Of the 1,308 current registered apprentices, 8% are veterans, 52% work for independent sponsors, 48% are union sponsored.

From July 1, 2004 to June 30, 2006, the program completed 354 apprentices. This reflects an estimated 28% completion rate of all apprentices registered during the period.

Since early 1991, Montana has experienced a steady increase in construction activity on a statewide basis. Currently, the total number of building trades apprentices is 1,132 (87% of all registered

Exhibit #8





apprentices). The workforce for that industry is predicted to have continued and steady growth due to an aging existing workforce and steady increase in new construction.

## Other facts...

During the time in review, the Apprenticeship and Training Program staff provided the following services:

- Staff responded to over 764 requests by employers for apprenticeship registration. Of the total number of requests, 249 stemmed from Western Montana, 349 requests from Eastern Montana and 166 from Central Montana.
- The Program provided over 120 formal presentations detailing the program to high school career days, community job fairs, female and minority organizations and employer groups at a statewide level.
- Field staff conducted 12 comprehensive EEO reviews, established or revised 4 Affirmative Action plans for independent employers and revised over 319 active apprenticeship sponsor training standards.
- During the time in review, the Program provided temporary project agreements to 29 out-of-state firms working in Montana and temporary registration to 49 out-of-state apprentices. The Program also has extended courtesy registrations to 118 apprentices registered in other states but are employment-based in Montana on a full-time basis.



*"I am very pleased that we got together with the apprenticeship system. With more formal training everyone is more accountable. What this apprenticeship program is really about is providing quality jobs. The apprenticeship program and our company really are set up to help people in a completely practical way. It provides for these guys their own personal dignity. A bargaining chip for them to make the kind of money that allows them to have a good quality of life, raise family and allow them to send their kids to college if they choose to do that. Talking about people turning out recently it just gives me chills because it is so true how much good this system does for people."*

Michael Whistler, President,  
Whistler Tile & Stone Inc., Bigfork, MT

Quality of life in Montana and retail expansion is expected to support a more moderate increase in the construction sector. During the 2004/2006 biennium, industries that traditionally employ apprentices experienced the following employment trend:

#### CONSTRUCTION

In 2006 the industry employed 26,200 workers compared to 23,400 employed in this sector in 2004.

#### UTILITIES (Electric & Gas)

In 2006 the industry employed an estimated 2,856 workers compared to 2,800 employed in this sector in 2004.

#### MANUFACTURING

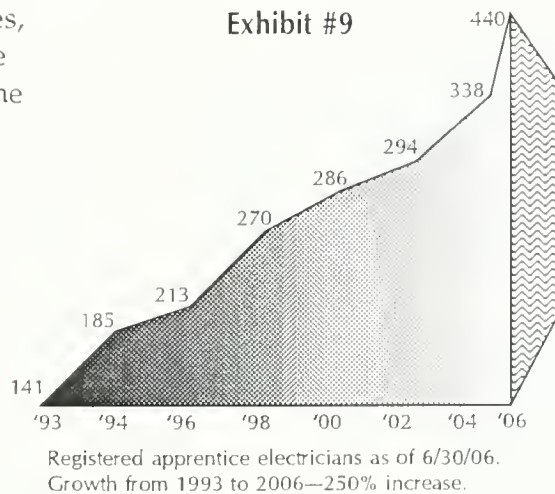
In 2006 the industry employed 19,354 workers compared to 18,700 employed in this sector in 2004.



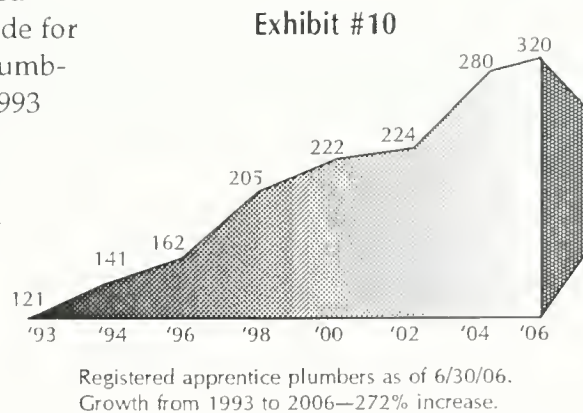


# Employment Trends in Apprentice-able Occupations

Since 1991, Montana has experienced a steady increase in construction activity on a statewide basis. The current forecast for the construction industry is continued growth through the year 2010. Quality of life, stable interest rates and retail expansion is driving the growth rate in the greater Big Sky area, Gallatin-Park Counties, Missoula-Bitterroot and the greater Flathead Valley. The growth rate in Billings/Yellowstone County has been driven by a combination of industrial, healthcare and retail expansion from the energy/refining industries and an infusion of big-box store retail outlets.



During the period in review, there has been a continued shortfall on the supply side for fully-trained, licensed plumbers and electricians. In 1993 there were 141 electrical and 121 plumbing registered apprentices in both union and independent sponsorship. In fiscal years 03/04, there was a continuation of a ten year trend in demand



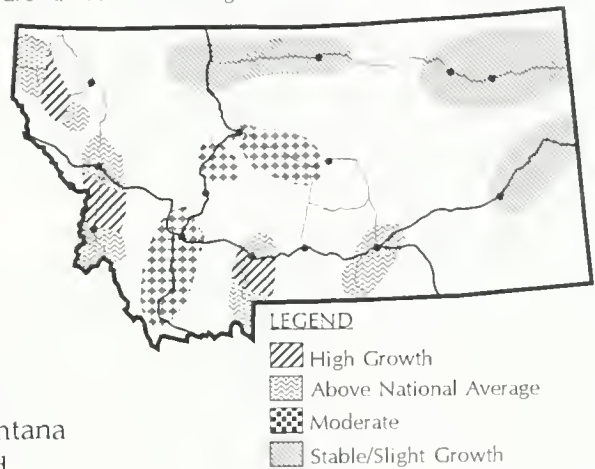


for apprentices in both of these trades. As of June 30, 2004 there were 338 registered electrical apprentices (including 41 residential apprentices) and 280 registered plumbing apprentices. As of June 30, 2006, there were 460 registered electrical apprentices and 320 registered plumbing apprentices. The increase participation in these two programs reflect a 250% increase for electrical apprentices, 360% increase for residential electrical apprentices and a 227% increase for plumbing apprentices since 1993.

With the increase in growth in residential and commercial, construction and an existing journey workforce that is close to retirement, the demand for entry-level skilled workers has increased dramatically. During the reporting period, the Apprenticeship and Training Program increased its number of career days and job fair attendance, promoted the new construction related educational programs being developed in the Montana two year higher education system and provided construction related information to numerous business entities statewide. The Apprenticeship and Training Program will continue to make all necessary efforts to inform "Montanans" regarding these excellent training and employment opportunities.

#### Exhibit #11

Growth areas in building trades construction from 1991 to 2006.





# Equal Employment Opportunity Services

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In 1991 the Secretary of Labor delegated authority and assigned responsibility to the Federal Bureau of Apprenticeship and the Office of Federal Contract Compliance programs to enforce current Equal Employment Opportunity (EEO) and Affirmative Action regulations to program sponsors of apprenticeship. To maintain the status for federal recognition, the Montana Apprenticeship and Training Program is obligated to enforce and conduct EEO and Affirmative reviews to qualifying sponsors of apprenticeship on a periodic basis. The state apprenticeship staff provides technical services and compliance reviews for 40 programs required to have Affirmative Action Plans and EEO Selection Procedures during the time period in review. The state program staff also investigates and mediates complaints relative to these areas.

Sponsors who historically employ five or more apprentices must have an approved Affirmative Action Plan and EEO Selection Procedure for the selection and hiring of apprentices in accordance with Federal Code, CFR 29.30. State apprenticeship staff provides technical assistance to sponsors in the development and management of their plans and review the operation of those plans for compliance on a regular basis.

The Apprenticeship and Training Program staff conducted 12 periodic reviews during 2004/05 and 2005/06 and found the majority of the program sponsors in close compliance with both State and Federal standards.

During the biennium the Apprenticeship and Training Program saw a slight increase of small independent sponsors of apprenticeship establish EEO selection procedures and Affirmative Action Plans. Continuing program growth with independent sponsors was the primary factor in the increase.



# Projections and Special Projects

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# Establishing “Linkages” between Apprenticeship and Education

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In January of 2006, Department of Labor and Industry Commissioner Keith Kelly chaired an initial discussion regarding establishing an educational training process to ensure that Montana will be prepared to meet the demand for a highly-skilled technical workforce now and into the future. In Montana and on a national basis the workforce is aging and it's imperative that we have the skilled workers ready and available to replace the 'baby-boomers' if we hope to attract new investment capital into the state and at the same time, help our existing businesses to expand, prosper and help our workers increase their earnings.

The Commissioner suggested that the best way to proceed would be to assemble representatives of state government, labor, business and higher education to begin the discussion of how best to integrate all the modules necessary to ensure the development of a quality technical skills training program that would be compatible with and complimentary too, established registered apprenticeship training curricula. Instead of creating a new committee for this task, the Governor's State Workforce Investment Board Apprenticeship Advisory Committee, which is representative of the necessary parties, was charged with formulating a working plan. The 10-member committee is chaired by Michael O'Neill, Director of Labor and Employee Relations for Northwestern Energy Corporation.

In March of 2006, the advisory Committee started the development of a Memorandum of Understanding (MOU) to clearly delineate the roles and responsibilities of all interested parties in structuring a technical educational program that would allow for a seamless transition from a 2-year AAS degree into an existing registered apprenticeship. The Business/Labor/Education linkage is intended to utilize all available resources to develop apprenticeship programs



in skilled vocations with a positive end result for the employers and employees. This effective collaboration of resources will allow for the development of curriculum appropriate for the identified trades that will include vocational pathways and career options.

In 2004, MSU-Northern took a bold move and implemented a 2-year AAS degree program in Plumbing Technology which also established the model for "industry" input for the development of the program. The program graduated its first 7 students in the spring of 2006 and all graduates found immediate employment in the plumbing trade in Montana. The Plumbing Technology Program was the first test case for determining transferability of credit for the apprenticeship program to reduce duplication of instruction and promote coordination between registered apprentice-able trades and higher education. Now that the Plumbing Program is established and more Montana plumbing contractors are aware of the 2-year program, MSU-Northern expects that this year, class size may need to be limited to a maximum of 15 students to ensure that group and individualized training standards are of the highest level. Many Montana plumbing contractors and vendors have generously donated equipment and materials for use by the school's training program.

The next step for MSU-Northern is the unveiling of their 2-year AAS degree program in Electrical Technology. The Apprenticeship and Training Program is currently assisting in the development of a MOU for the electrical program to determine the transferability of credit to the registered apprentice electrical program.

The Apprenticeship and Training Program is excited about the expanded employment opportunities that will occur as a direct result of this educational collaboration between the existing registered apprentice programs and the higher education community.



# Montana Women in Apprenticeship

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## Ashley Copperwheat

Twenty-five year old Ashley Copperwheat may look like any other resident of Great Falls, but Copperwheat is anything but ordinary. Copperwheat, a parts runner for A T Klemens, Inc. (a large, locally-owned mechanical contractor with a long history of offering apprenticeship opportunities in plumbing, electrical, sheet metal and roofing to workers in North Central Montana) had no idea that one day she would embark upon a career as a plumber. Having attended college for three years working towards a degree in teaching, somewhere along the way Copperwheat decided, "I just wasn't cut out to be a desk person."

In a move for change, Copperwheat undertook what some consider a very non-traditional career change.

Copperwheat was approached by A T Klemens' apprenticeship coordinator Karen Fried and company president Darrell Anderson who had encouraged her to apply for one of their apprenticeship programs in either roofing, sheet metal, electrical or plumbing. After giving it some thought, she stated, "It came down to electrician or plumber and based upon what I had witnessed on the various job sites as a parts runner, I decided I wanted to be a plumber." On July 10, 2006 Copperwheat took the plunge and was enrolled in the registered apprenticeship plumbing program.

When asked what her long-term career plans are, without any hesitation, she exclaimed, "I want to get my Masters license!"

Copperwheat also says she's working hard to get into shape to help





her meet the physical demands of her newly-chosen vocation. "It's tough work but I'm tough too," she says.

For other women considering a career in "non-traditional" employment Copperwheat offers the following advice, "If you enjoy working outdoors in a challenging and rewarding profession and seek job security and financial reward, you should consider the opportunities offered in the skilled construction trades. Most importantly, don't listen to those who would tell you what you can't or shouldn't do – concentrate on what you can do and just do it.

Following the completion of Copperwheat's 5-year, 8,500 hour plumbing apprenticeship program she will receive a Certificate of Completion issued from the Montana Department of Labor & Industry Apprenticeship & Training Program. This certificate is highly recognized and accepted in all 50 states as absolute verification that the holder has met all the necessary qualifications to work as a licensed journey level plumber. As a journeymen plumber, Copperwheat will command a minimum wage of \$23.17 per hour and a potential benefit package that includes health insurance, vacation and retirement benefits.

In addition to the very attractive wage and benefit levels established for a Copperwheat, personal cost for her training and education will be minimal compared to \$30,000 - \$50,000 debt load after 4 years of college. Copperwheat's sponsor has agreed to pay for 50% of all her educational materials (provided she maintains an 85% average in her course work) plus pay her a progressive wage throughout her 5-year training period. This is one more example of a win – win employment opportunity that hopefully more Montana women will give serious consideration to when making their career decisions.





## Dani Schwarz

Nestled between the Pioneer Mountains and the Ruby Range, rests the Dillon residence of ambitious and determined 25 year old Dani Schwarz. Schwarz a second year electrician apprentice registered with Department Labor & Industry Apprenticeship & Training Program, works for Abacus Electric, and is a part-time licensed Ferrier.

When asked what made her decide to pursue a career as an electrician Schwarz replied, "It's kind of funny because I had always been somewhat afraid of electricity". But with the encouragement of her current sponsor, Richard Reyes, and others in the community, not only has she



overcome her fear of electricity, but according to Reyes, she's quickly developing into a top notch apprentice. "I'd put Dani up against any second year apprentice in the state" claims Reyes.

Ironically, when Reyes first contacted Schwarz about becoming his apprentice, her initial response was, "Gee thanks for asking but I don't think so." Schwarz says she's never been shy about taking on new challenges, having previously worked as a licensed noxious weed sprayer but her loyalty to her current employer, Pat Thomas of Standard Lumber and Glass Co., caused her to hesitate.

Schwarz was recommended to Reyes by Pat Thomas. Although Thomas didn't want to lose Schwarz as an employee, he knew it would be a great career move for her and there was no denying that she had all the attributes that Reyes was looking for in a new apprentice.



Reyes waited for a more favorable response from Schwarz, but one wasn't forthcoming. Then one night on the way home, Reyes stopped by the local market to pick up some groceries. As he was going into the store, he came face-to-face with Schwarz coming out through the same door. Reyes thought he'd give it one more try and said, "So were you ever going to return my call?" With that she replied, "Yep, I'll call you tomorrow." Schwarz went to work for Reyes and Abacus Electric the next day.

When asked how she deals with the physical demands of the job she replies, "The same way anybody else would – you figure out how to get the job done and then, how to get it done right the first time". Richard is an excellent teacher. He not only shows me how it's done but also takes the time to explain why we do it this way."

In addition to her on-the-job training, Schwarz must successfully complete related instructional course work, which she says she works on whenever she gets the chance – "like riding to the next job with Richard."

For other women considering a career in a traditionally male dominated profession, Schwarz offers the following words of advice, "Don't pay attention to the nay sayers, and don't limit your opportunities. Stay physically fit and go for it!"

At the conclusion of the 4-year electrical apprenticeship program Schwarz will receive a Certificate of Completion issued by the Montana Department of Labor & Industry Apprenticeship & Training Program. This certificate is highly recognized and accepted in all 50 states as absolute verification that the holder has met all the necessary qualifications to work as a licensed journey level electrician. As a journeymen electrician, Schwarz will command a minimum wage of \$19.92 per hour and, in most cases, full benefits to include health insurance, vacation and retirement benefits.



# Livingston Apprentice Brings Home National Award

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Each year, more than 10,000 independent electrical apprentices from across the nation apply for the coveted Independent Electrical Contractors Wire-Off award. After a series of state and regional competitions those 10,000 are whittled down to 20 who will move forward to the national contest held in Denver. This year, thirty-four year old Neal Lamke of Livingston, Montana was one of those twenty.

Lamke's journey to the top of his profession was like that of many Montana high school graduates trying to find their place in the world of work. After graduating from Bozeman Senior High, he drove freight, dabbled in restaurant work and put in a stint at a local saw mill. By age 30, he knew he needed a better future for himself. His inspiration wasn't that far away; in fact all he had to do was pick up the phone and call his father. Al Lamke, a retired twenty-five year state electrical inspector, shared with his son the specifics of an apprenticeship program.



Neal Lamke began his electrical apprenticeship with Burke Electric then moved on to Young's Electric and finally settled in with his current employer, Tech Electric in Livingston.

Lamke attended classes taught by the Treasure State Independent Electrical Contractors (IEC) Chapter in Bozeman during the training period with Tech Electric. "The training I received was top-notch," said Lamke. "The best part was that my employer, Tech Electric, paid



for all my training plus paid me a darn good wage while I was learning the trade." "That's what's so neat about serving an apprenticeship – you earn while you learn!"

Lamke was finishing up the final year of his training when the head of the Treasure State IEC came to his class and asked if any of the students were interested in the 2006 national wire-off contest. Lamke, competitive by nature, who finds relaxation in hunting bears with a handgun, immediately decided to try out. Tech Electric was so invested in Lamke's success they not only encouraged him to enter the contest, they paid all of his trip expenses to Denver.

During one of the most critical parts of the contest, as lamke was assembling a circuit diagram and bending conduit, he glanced out into the crowd and, much to his surprise, saw his mom and dad who had flown in unannounced from their home in Hawaii. "No added pressure there!" he recalls.

Last year's second place winner, Travis Thrums of Christie Electric, Bozeman can attest to the skills required for the competition. The competition is a tough two days, packed with written tests, practical problem solving challenges, and wiring local and remote stations for a hydraulic process.

Lamke's employer knew that he had the potential and was willing to make the investment in him. According to Ray Richards, Tech Electric shop Manager, it's the highest honor that apprentices can attain.

"The apprenticeship program, the IEC and Tech Electric have made it possible for me to become a highly-skilled craftsman and for that, I'm extremely grateful," said Lamke upon receiving the \$3,000 award and \$1,000 worth of tools. "For now, I have no desire to open my own electrical business but, I am considering accepting an invitation to instruct in the Bozeman area IEC program. It's a small way to give back for the wonderful opportunities I've received."





**D**uring the 2005 legislative session, SB 217 was introduced by Senator Lane Larson of Billings. The intent and purpose of the bill was to utilize the existing State Prevailing Wage Survey method and the established 10 survey districts to determine apprentice wage rates, based on this established method. SB-217 became law on July 1, 2005 and went into effect October 1, 2006.

The law provides a number of benefits for the administration of apprenticeship in our state. SB-217 repealed an existing administrative rule covering apprentice wages that required the Apprenticeship and Training Program to be responsible to contract a survey every two years. This process was both costly and time consuming. The law now allows for uniformity in the survey process and provides an accurate representation of wages rates for specific geographical areas. The provisions of SB 217 only applies to construction trade related occupations and will provide the program with an effective formula for determining apprentice wage rates statewide.

The Apprenticeship and Training Program endeavored to provide all apprentice sponsors on-going information from the time SB 217 was first introduced until the time it became law. The Program distributed several informational notices concerning SB 217 and extended the offer for additional explanation as needed by the Montana Apprenticeship Community.



# The Future of Apprenticeship in Montana

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C urrently the Montana Apprenticeship and Training Program has 1,308 apprentices registered in 50 different occupations, the highest level of registrations in the Program's 65 year history. During this biennium in review, the Program has also experienced one of the highest completion rates of apprentices in program history, completing 354 apprentices during the review period. Also of note, 84% of all apprentices completing the Program since 1997, are still working and contributing in Montana in the occupations they trained in. In the 2005/06 fiscal year, the average hourly wage rate for 3rd year apprentices was an estimated \$15.57 an hour, with Montana apprentices contributing over \$7 million in state and federal taxes.

The educational delivery system for apprentices has been enriched with four new schools for independent electrical apprentices; the start up of the MSU-N two year AAS program for plumbing; the MSU-N correspondence package for plumbers and the advent of the Montana two year educational system entering into construction trades training.

New additions to the Program's administrative rules concerning apprentice to journeymen work ratios have allowed sponsors to increase their numbers of apprentices but also will provide the Montana Apprenticeship Community a sense of harmony, which has been lacking for a number of years.

During the biennium, Program staff also exceeded record numbers for new apprentice registrations, employer visits, program presentations and providing information to interested parties. The Program with a viable increasing demand for services has been able to maintain a high customer service level, with 75% of the Programs operations focused on "return business".



Where to do we go from here? Although the Apprenticeship and Training Program realized steady growth and positive improvements during the reporting biennium, we face uncertainties in the future and the direction of the Program.

The majority (87%) of all existing Montana registered apprentices work in construction related occupations. With that industry facing a high attrition rate due to an aging workforce, coupled with a steady growth in new construction, the Program will continue to see an increase in apprentice registrations in that industrial sector. The Program has earmarked other occupations, such as the automation and the health care industries as strong potential growth areas for new apprentice registration.

Other uncertainties facing the Montana Apprenticeship Community involve the implementation of the "WIRE" grant, an economic development package that would rely on a partnership with apprenticeship for the development of new occupations in the bio-fuel industry; The increasing demand for skilled labor and the potential workforce shortage that could hinder economic growth; Developing non-traditional partnerships with business and education and expanding and promoting apprenticeship into Montana's secondary educational system.

The Apprenticeship and Training Program will continue to maintain linkages with Workforce Investment Act organizations, develop more partnerships with the educational community and other job training related organizations by providing direction, information, on-site presentations and technical assistance as needed. The Program intends to maintain its high customer service level acting as consultants with the intent to help our customers achieve success.



In conclusion, the Apprenticeship and Training Program staff will continue to dedicate their efforts towards providing our Montana sponsors, apprentices and the interested public with any assistance that ensures a high level of quality training for Montana's skilled workforce for now and for the future.





# Apprenticeship & Training Program Staff

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# Affiliated Professional Associations

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State Workforce Investment Board – Apprenticeship Advisory Committee

National Association of State and Territorial Apprenticeship Directors

Eastern Seaboard Apprenticeship Association and Conference

The Montana Apprenticeship and Training Directors Association

MSU-Northern Plumbing and Electrical Advisory Committee

BILT Grant Advisory Committee

Flathead Valley Community College Trade Development Advisory Committee

COT/UM – Butte, Linemen School Advisory Committee

Montana Early Care and Education Career Development Board

Montana Early Childhood Advisory Council

Montana Early Childhood Apprenticeship Advisory Committee

U.S. Department of Labor, Advisory Committee for Apprenticeship

IAWP (International Association of Workforce Professionals)



# Appendix

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# REGISTERED APPRENTICES BY OCCUPATION

JUNE 30, 2006

OCCUPATION	ACTIVE
AUTOMOBILE BODY REPAIR	3
AUTOMOBILE MECHANIC	4
BOILER OPERATOR	9
BOILERMAKER FITTER	27
BRICKLAYER – CONST	21
BUTCHER – ALL – ROUND	1
CARPENTNER – CONST	66
CEMENT MASON – CONST	3
CHILD CARE DEV SPEC	54
CONST CRAFT LABORER	9
DIESEL MECHANIC	1
ELE APPL SERVICER	2
ELECT – SUBSTATION	3
ELECTRICIAN MAINT	3
ELECTRICIAN - ANY IND	399
ELEVATOR CONSTRUCTOR	17
ENVIR - CONT - SYS – INSTL	3
FIRE FIGHTER ANY IND	24
GAS MAIN FITTER	2
HYDROELE. GEN. OPER.	1
INSULATION WORKER	1
LINE ERECTOR – CONST	11
LINE MAINTAINER	7
LINE REPAIRER	28
LOAD DISPATCHER	4
MACHINIST	2
MAINT MECH – TELEPHONE	5
MAINT REPAIRER IND	7





OCCUPATION	ACTIVE
MECH - INDUST TRUCK	1
MILLWRIGHT	2
MT COMB STAT CO TECH	2
OPERATING ENGINEER	16
PAINTER	1
PIPE FITTER - ANY INDU	22
PIPEFITTER CONST.	7
PLUMBER - CONST.	320
POWERHOUSE MECHANIC	5
PROTECT SIGNAL INSTL	6
REAL ESTATE APPRAISE	1
REFIGERATION MECH	5
RELAY TECHNICIAN	1
RESIDENTIAL WIREMAN	61
ROOFER ( CONST)	6
SHEET METAL WORKER	63
STATION INSTL & RP	1
STATION ENGINEER	2
STRUCTURAL STEEL WKR	33
TILE SETTER (CONST)	5
WEB PRESS OPERATOR	1





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